

353 nuts above the reach of small children. Occasionally a large
[202] wooden signal drum may be found leaning against a wall post. There are no other important permanent furnishings.

356 The spaciousness of the house is matched by its neatness
[412] and cleanliness. The women sweep both inside and outside daily with a short broom made by lashing together branches of the *hapimuk* plant. The sweepings are put on a banana leaf and carried away in an old basket to be dumped in the forest.

354 Smoldering fires are maintained at the foot of all beds both
513 in the men's and women's ends to heat the sleepers' feet especially during the nights, which are often chilly, depending upon the altitude and the weather. Those at the women's beds are also the household cooking fires (see Plate 10). All household fires are made by laying three thick palm logs so that their ends meet like the spokes of a wheel. Normally, the log ends smolder slowly, but when a pot is set upon their juncture the logs soon burst into flame. With such an arrangement, fire lighting and kindling is rarely necessary. At night, additional light is provided by burning a small torch or two of copal.

Subsistence

- 24 Each household has either a single large garden or several
[351] smaller ones. In the latter case, the house itself is usually located in the largest. Such gardens constitute almost the
• [146] exclusive source of carbohydrates for the Jivaro, providing, in terms of calories, perhaps about 65 per cent of the diet. The cultivation of slowly maturing tuberous plants, especially sweet manioc (*Mamibot utilisima*), which can be harvested over long periods of time, the absence of a distinct dry

sonally from the fruits of the chonta palm (*Guilielma utilis*). 273

A rough estimate of the average daily beer consumption of the adult male is three to four gallons; of the adult female, approximately one to two gallons; and of nine- to ten-year-old children, about half a gallon. The beer must ferment for four or five days to reach its maximum alcoholic content, but this is usually intentionally done only for feasts planned in advance. On the other hand, a jar or two of beer may reach such strength simply because it has not been consumed, in which case its availability provides an occasion to invite neighbors to come by for a drinking and dancing party. [146] • [855]

The division of labor between men and women in agricultural activities is well defined. Women do most of the laborious garden work, being exclusively responsible for planting and harvesting manioc, Araceae species, sweet potato, *papa china*, red pepper, sugar cane, onion, and pineapple. Men and women work together to plant peanuts, but only women harvest them. Men alone plant and harvest maize. They also plant plantain and the "gold" bananas, but let the women do the harvesting. Women have sole responsibility for the arduous and never ending task of weeding. They use the machete as the weeding tool, scraping the earth to cut off all weeds at ground level. This task consumes the greatest amount of their time in the garden. 462 24

An idea of the nature of the sexual division of labor and, incidentally, of the importance of manioc beer, may be provided by the following log of a daily subsistence routine. 273 462

The husband gets up from his wife's bed at about 2 A.M., goes to the men's end of the house and sits down on a stool. He washes his mouth out with water from a gourd "bottle" at his side. He calls to his wife to "bring beer." She heats up some water and mixes it with manioc beer, and brings a pot of it to him. She 512 574

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279 and plantains around it. She supports the basket with a tumpline
 462 over the forehead, carries an empty cooking pot in her right
 512 hand, a firebrand in her left hand, and the axe under her arm.
 313 Leaving the children in the house, she sets forth down the trail
 with her husband, who carries only his gun and his machete.

[482] When they arrive at the spot where trees are to be felled, she
 fetches wood, makes a fire, and cooks manioc. Her husband
 starts felling trees. After about two hours he calls for beer. He
 drinks two or three gourd bowls full and continues working.
 In about another hour he calls for beer again and drinks a similar
 [252] amount. He tells his wife to cook meat and continues working.
 Around noon he goes to where she has been cooking, and asks
 for beer, drinking three gourd bowls full. She serves boiled
 [252] meat, putting it, with boiled manioc and roasted plantains, on
 [262] fresh banana leaves. When they finish eating, he drinks beer
 again, and returns to his work. He fells trees for about an hour,
 comes back and drinks more beer.

Then they return home. When they arrive, he sits down on his
 stool and asks for beer. At about 2 P.M., his daughter and son-in-
 [606] law, who live a few hundred yards away, drop by and join in
 drinking beer. They all begin to social-dance and, since there is
 [535] ample beer brewed, they continue drinking and dancing all
 afternoon and late into the night. They drink beer continually
 [262] and do not bother to prepare or eat any food. The children
 [855] drink beer, too, and munch on cold boiled manioc. By about
 [606] 3 A.M., everyone has fallen asleep, the daughter and son-in-law
 staying overnight in the house. They all sleep until early the
 next afternoon, when they eat.

224 Hunting is the chief source of protein, and is more impor-
 • [146] tant to the food supply than fishing or gathering, contributing
 an estimated 20 per cent of the diet. A great diversity of
 [222] botanical and zoological species exists in this region,³ but this
 [136] variety is typically accompanied by low density of popula-
 [222] tion for any particular species. This low density sometimes
 [136]

To assure success in hunting, young men (both married and unmarried) may join together in a small group under the supervision of an older master of ceremony (*was*) to inhale tobacco smoke for a three-day period during which they alternate the smoke-inhalation sessions with hunting in the forest with blowguns. During the ritual sessions, called *kucipan*, the men take turns blowing tobacco smoke through guadua bamboo tubes into each other's lungs. It is believed that a man must entirely swallow the smoke he receives in order to be certain that he will not fail as a hunter.

A variety of fish and shellfish is present in streams and rivers, but swift currents and the small size of many water-courses seem to limit the degree of emphasis on their exploitation in many localities. Fishing roughly contributes perhaps only a little over 5 per cent of the total diet, significantly less than hunting. Corvina, suckers, and sheat-fish are taken from main streams and rivers, while crayfish and fresh-water crabs are gathered in the shallows.

Fishing techniques range from simply seizing fish by hand to complex river-poisoning operations. The fish that are caught bare-handed belong mostly to a species (*neyumpi*) capable of fastening itself to the underside of river boulders by means of a suction pad appendage. Hook-and-line fishing is done from a riverbank. Any handy stick is used for a pole, while an iron trade hook is baited with a piece of manioc, ripe plantain, or an earthworm.

A few men possess rectangular throw nets for catching medium-sized fish. A pair of fishermen, or a man and his wife, enter the shallows about ten feet apart. One tosses an end of the net to his companion with a circular motion. As the net is drawn to shore, balia wood floats support its top edge, while stone sinkers keep it vertical in the water. Good-

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225 sized fish are also caught in deeper waters with a special thin,
long palm wood thrusting spear.

225 Fish poisoning is undertaken perhaps every few weeks to
278 secure a large catch. Men, women, and children from several
neighboring houses usually participate. They select a section
of river where it is bisected by an island or sandbar, to which
the men and boys construct a low dam of river boulders from
one bank. This stone dam is constructed to form a lagoon
where the poison can sufficiently take effect in the slowed
current. Other men meanwhile build split bamboo grating-
like fish traps at several low points on the dam and prepare
the fish poison.

[824] Three types of plant piscicides are used: *time* (in Spanish,
barbasco), *mame*, and *peyal*. *Time* is considered the best of
these, but is used in combination with *mame* for maximum suc-
cess. Large quantities are required, and the fishermen often
prepare six to eight bushel-sized baskets. They pound the
plants to a pulp between river boulders and dump them into
the water upstream. If all goes well, within twenty to thirty
minutes stunned fish begin rising to the surface and float
toward the dam. The men who constructed the traps seize
the fish as they are washed onto the bamboo gratings. Every-
one else, regardless of age or sex, wades into the lagoon and
grabs for fish. Each person owns whatever he catches, al-
though he often may give some of his catch to a less fortunate
participant. Fish poisoning is sometimes pursued at night be-
cause the fish tend to be nearer the surface and therefore
more susceptible to the poison. Both poisoning and netting are
most effectively conducted during dry periods, when the
rivers and streams are low and the current slow.

622 Gathering activities contribute quantitatively relatively
• [146] little to the diet, approximately 5 per cent annually, but do
provide a variety of delicacies to supplement it. Various species